Making "Waste" Useful for the Military at Fort Hood

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Power Point Layout:

Doug Creek

Hamilton-Coryell Soil and Water Conservation District.

USDA NRCS
Natural Resources Conservation Service

Making "Waste" Useful

for the Military at Fort Hood

A Cooperative Effort of the Directorate of Public Works (DPW)

Directorate of Plans, Training, and Mobilization (DPTM)

and USDA - Natural Resources Conservation Service (NRCS)

Concerns at Fort Hood

DPW

- **Landfill Operations**
- **Recycle Center**
- **Coordination**
- Funding
- Waste products
- Erosion Concerns

ITAM

- Coordination
- Funding
- Military Training Concerns

NRCS

- Planning
- Design
- Land Rehabilitation
- Military Training Support

Concerns at Fort Hood

Military Training

- **Safety**
- **Access**
- **Maneuverability**

Environment

- **Soil**
- **Water**
- **Air**
- **Vegetation**
- **Wildlife**
- **Military Landuse**

Waste Materials

- **Waste Rock**
- **Waste Wood**

Concerns at Fort Hood

Military Training

Access

Concerns at Fort Hood

Military Training

Safety

Concerns at Fort Hood

Military Training

Maneuverability

Concerns at Fort Hood

Environment

Protect the SOIL, WATER, and AIR by enhancing native VEGETATION

Concerns at Fort Hood

Environment

Protecting the Habitat of Endangered Species and WILDLIFE

Concerns at Fort Hood

Environment

Deep gullies restrict MILITARY LANDUSE

Concerns at Fort Hood

Waste Materials

WASTE ROCK is generated as new areas are dug at the landfill. Each area is equal to 5 football

Concerns at Fort Hood

Waste Materials

WASTE WOOD is collected and processed into mulch at the Recycle Center

Land Rehabilitation by NRCS

- Construction of Maneuver Access Structures with Waste Rock
- Application of Ground Cover with Mulch

Land Rehabilitation by NRCS

Construction of Maneuver Access Structures with Waste Rock

USDA NRCS Natural Resources Conservation Service
U.S. Department of Agriculture
Maneuver Access Structures and Mulching
General Contractor --Ambreco Construction Company

Project is funded by DPW through NRCS

Land Rehabilitation by NRCS

Construction of Maneuver Area Crossing Structures with Waste Rock

Rock is reduced to useful size by a hydraulic hammer

USDA-NRCS Ft. Hood Project Gatesville,TX

Land Rehabilitation by NRCS

Construction of Maneuver Access Structures with Waste Rock

A rock separator processes rock and material into specific sizes

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Land Rehabilitation by NRCS

Construction of Maneuver Access Structures with Waste Rock

Rock is transported to the construction site

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Land Rehabilitation by NRCS

Construction of Maneuver Access Structures with Waste Rock

Rock is placed into gullies on the training lands

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Land Rehabilitation by NRCS

Construction of Maneuver Access Structures with Waste Rock

Each gully has several maneuver access structures that catches water and silt for erosion control.

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Land Rehabilitation by NRCS

Application of Ground Cover with Mulch

Many areas have lost valuable topsoil and have difficulty supporting plant growth

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Land Rehabilitation by NRCS

Application of Ground Cover with Mulch

Waste Wood is collected and ground into mulch

USDA-NRCS Ft. Hood Project Gatesville,TX

Land Rehabilitation by NRCS

Application of Ground Cover with Mulch

Mulch is transported to the training lands

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Land Rehabilitation by NRCS

Application of Ground Cover with Mulch

Mulch is placed on areas that have very little topsoil

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Land Rehabilitation by NRCS

Application of Ground Cover with Mulch

Mulch is smoothed over the landscape to create a protective cover for plant growth

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Land Rehabilitation by NRCS

Application of Ground Cover with Mulch

The area is seeded into native grasses for erosion control

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Successful Use of Waste Materials

Before

After

Before

After

Successful Use of Waste Materials

Before

Without mulch

After

With mulch

1/4 inch rainfall

1 inch rainfall

Facts & Results

Waste Rock

300,000 tons available

30,000 tons used

Wood Mulch

6,000 yards per pear

Erosion Rate Before

15 to 150 tons/acre/year

Erosion Rate After

.01 to 7 tons/acre/year

Treated 1,500 acres

Rock Cost Mulch Cost

Processing }

Hauling } $30-40/Ton $7.71 cu yd.

Application}